

Date: Wednesday, 12/7/2005 8:26:00 AM
 User: Kim Johnston

Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services	Drawing Name	: WEARPLATE
Job Number	: 25137		
Estimate Number	: 10288		
P.O. Number	: N/A	Part Number	: D25771
This Issue	: 12/7/2005 S.O. No. : N/A	Drawing Number	: D2577 REV E
Prsht Rev.	: NC	Project Number	: N/A
First Issue	: N/A Type : PURCHASED PARTS	Drawing Revision	: E
Previous Run	: 24371	Material	: N/A
Written By	: <u>SEE COMMENT BELOW</u>	Due Date	: 12/30/2005 Qty: 50 Um: Each
Checked & Approved By	: <u>SEE ABOVE USER & DATE</u>		
Comment	: Est: E 02.09.24 Re-format; Incorporated D2577-101-11 KJ/ RF		

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	PG	PURCHASING
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Comment: PURCHASING

Issue P/O: 245
 Email or Ship DXF file to vendor

Laser Cut per Dwg D2577 flat pattern D2577-101

Material release note required

W 05-12-07 50

2.0	D25771F	Wearplate Fwd
-----	---------	---------------



Comment: Qty.: 1.0000 Each(s)/Unit Total : 50.0000 Each(s)

WEAR PLATE FWD

3.0	PACKAGING 1	PACKAGING RESOURCE #1
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Comment: PACKAGING RESOURCE #1

Receive & Inspect For Transit Damage
 Ensure material release note is attached.

DC 05/12/30 50

4.0	QC6	DIMENSIONAL CHECK
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Comment: DIMENSIONAL CHECK

Inspect dimensions per template D2577-101T

06-01-19

5.0	SMALL FAB 1	SMALL & MEDIUM FAB RESOURCE 1
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Comment: SMALL & MEDIUM FAB RESOURCE 1

Deburr

N/A

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: LD Date: 06/03/13
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Wednesday, 12/7/2005 8:26:00 AM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: WEARPLATE

Job Number: 25137

Part Number: D25771

Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

BRAKE NC

NC BRAKE



Comment: NC BRAKE

1-Form on brake as per Dwg D2577 using DT8155 and DT8179

2-Form joggle as per Dwg D2577 using DT8157

3-Identify as D2577-1

SB 06/01/19

7.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

06-01-20

8.0

LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

Weld hard surface using DT8308A & DT8308B as per Dwg D2577

Qty Description

Batch

A/R 7560 Hardcoat Rod

19442 M19612

06-02-1

9.0

QC9

VISUAL WELDING INSPECTION



Comment: VISUAL WELDING INSPECTION

PD 06-02-03 50

10.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat Grey Sandtex (Ref. 4.3.5.6) as per QSI 005 4.3

06-03-10

11.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

06-03-13

(50)

12.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: FR

06-03-13

(50)

13.0

DC

DOCUMENT CONTROL



Comment: DOCUMENT CONTROL

Inspection Level 21

06/03/13

(50)

06-03-13

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



RELEASED
00.09.22

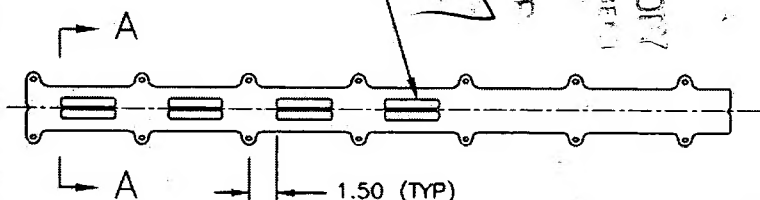
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CHECKED	APPROVED	DRAWING NO. D2577	SHEET 1 OF 5
DATE 00.09.22	TITLE WEARSHOE	SCALE 1:10	
A	96.09.16	NEW ISSUE	
B	96.12.04	ADD HARDCOAT WELDS	
C	97.05.30	CHANGE HOLES TO OBROUNDS	
D	98.08.17	CORRECTED DIMENSIONS ON -1 & -3	
E	00.09.22	ADD D2577-101/-11/-13 INCORPORATE DE09176	

7560 HARDCOAT WELD
4.0 LONG
0.063 TO 0.125 HIGH
(TYP. 11 PLS.)
WELD AFTER BENDING AS
ILLUSTRATED PER DT8308

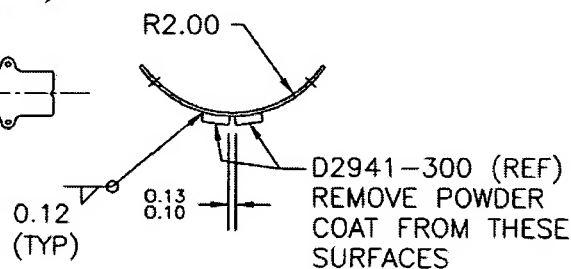


D2577-1 & D2577-3 WEARSHOE
MAKE FROM D2577-11 AND D2577-13 RESPECTIVELY
FINISH: POWDER COAT GREY (4.3.5.6) PER DART QSI 005 4.3
TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

D2941-300
SHWAYDER WEAPADS
(8 PLACES)



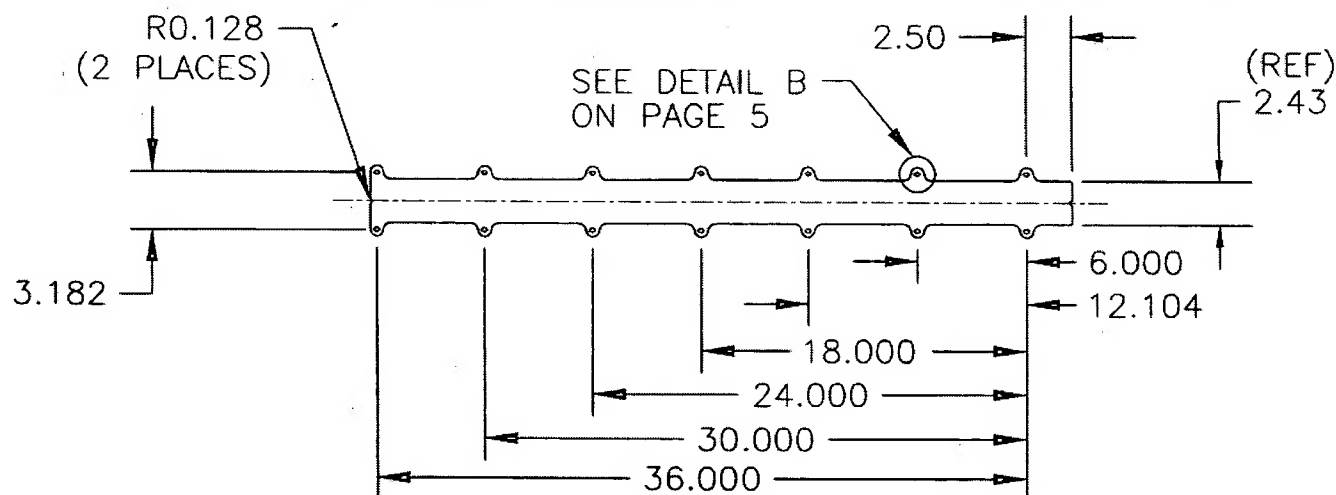
SECTION A-A
SCALE 1:5



D2577-21 & D2577-23 WEARSHOE
MAKE FROM D2577-11 AND D2577-13 RESPECTIVELY
FINISH: POWDER COAT GREY (4.3.5.6) PER DART QSI 005 4.3
TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED



DESIGN	DRAWN BY	DART AEROSPACE LTD
<i>[Signature]</i>	<i>[Signature]</i>	HAWKESBURY, ONTARIO, CANADA
CHECKED	APPROVED	DRAWING NO.
<i>[Signature]</i>	<i>[Signature]</i>	D2577
DATE	TITLE	REV. E
00.09.22	WEARSHOE	SHEET 2 OF 5
		SCALE 1:10



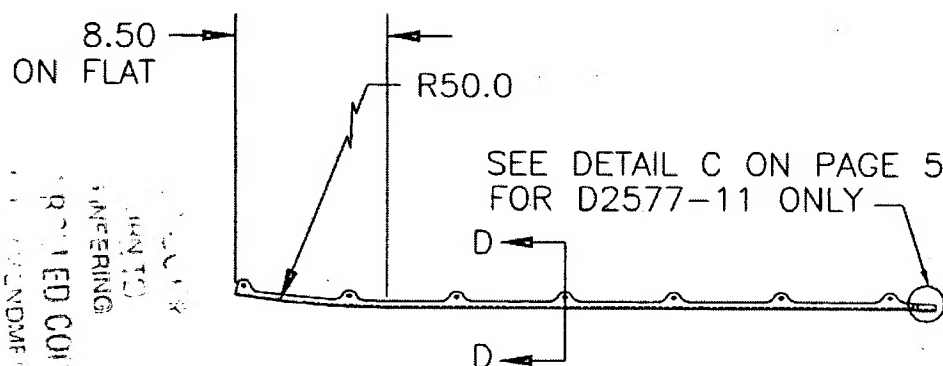
D2577-101 FLAT PATTERN

BREAK ALL SHARP CORNERS 0.010 TO 0.020

MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A569/A570

SERIES STEEL 0.063 THICK

TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED



D2577-11 & D2577-13 LONGITUDINAL BEND

MAKE FROM D2577-101

TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

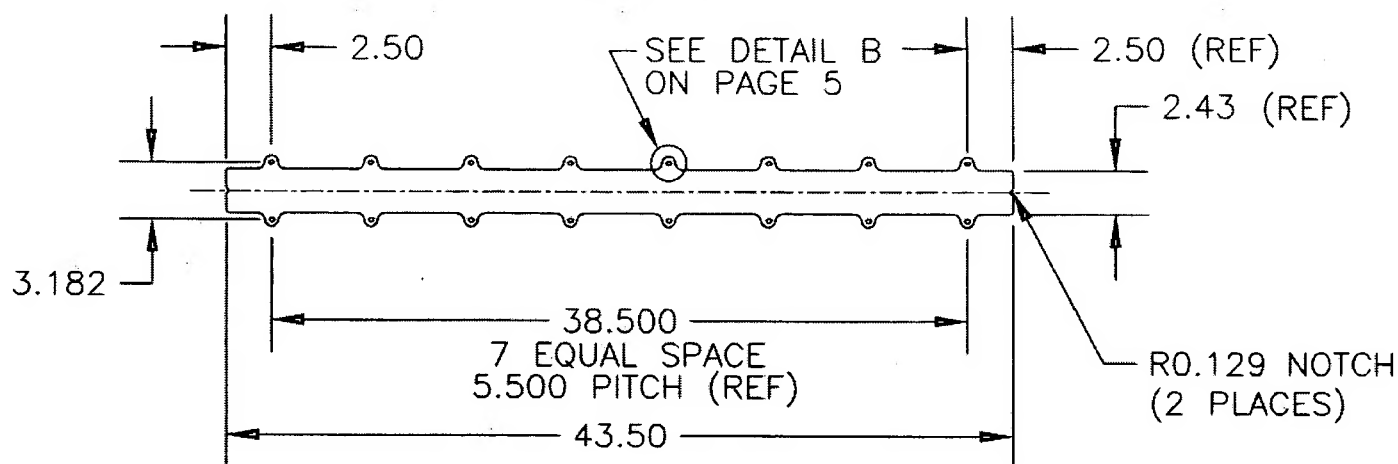
RELEASED
00.09.26

ORDER
25137

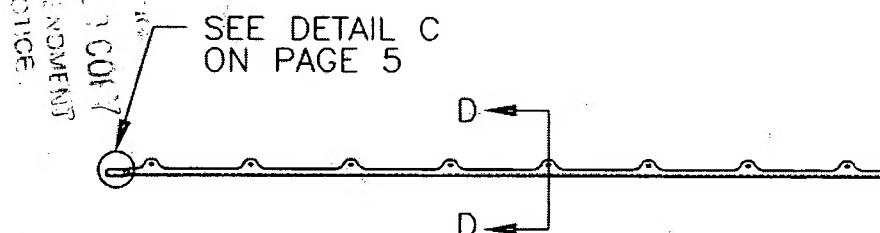


DESIGN	DRAWN BY	DART AEROSPACE LTD
✓	CP	HAWKESBURY, ONTARIO, CANADA
CHECKED	APPROVED	DRAWING NO.
✓	✓	D2577
DATE	TITLE	REV. E
00.09.22	WEARSHOE	SHEET 3 OF 5
		SCALE
		1:10

D2577-5 FLAT PATTERN



D2577-5 LONGITUDINAL BEND



D2577-5 WEARSHOE

BREAK ALL SHARP CORNERS 0.010 TO 0.020

MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A569/A570

SERIES STEEL 0.063 THICK

FINISH: POWDER COAT GREY (4.3.5.6) PER DART QSI 005 4.3

TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

RELEASED
00 09 22

NO ORDER
25137

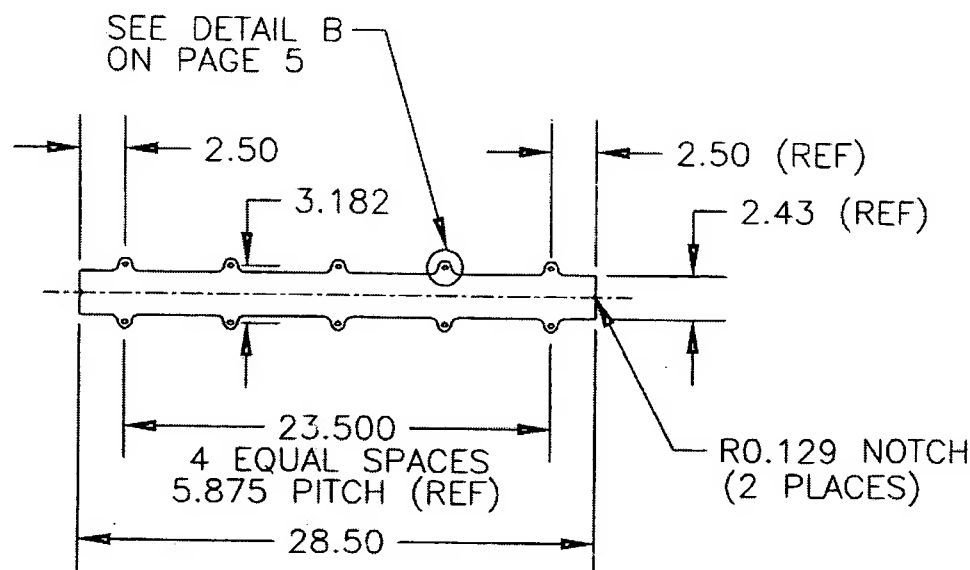
NOTICE
DOCUMENT



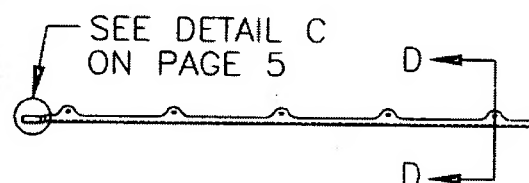
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CHECKED	APPROVED	DRAWING NO. D2577
DATE 00.09.22		TITLE WEARSHOE
		REV. E SHEET 4 OF 5 SCALE 1:10

RELEASED
00 09 26

D2577-7 FLAT PATTERN



D2577-7 LONGITUDINAL BEND



D2577-7 WEARSHOE

BREAK ALL SHARP CORNERS 0.010 TO 0.020

MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A569/A570
SERIES STEEL 0.063 THICK

FINISH: POWDER COAT GREY (4.3.5.6) PER DART QSI 005 4.3

TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

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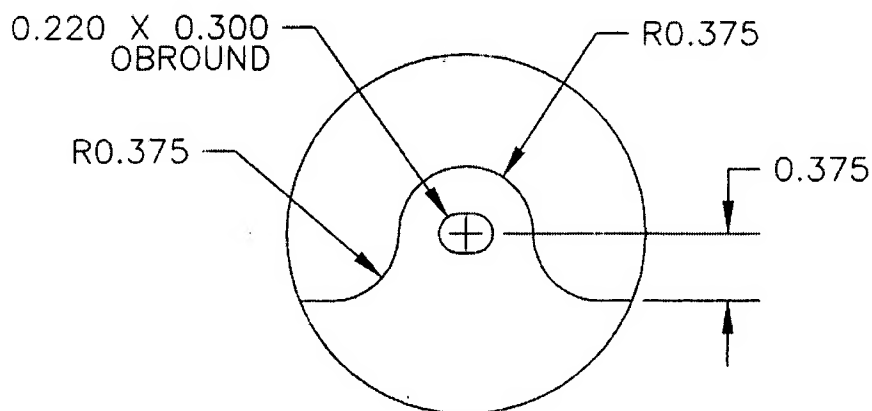
WORK ORDER
NO. 25137



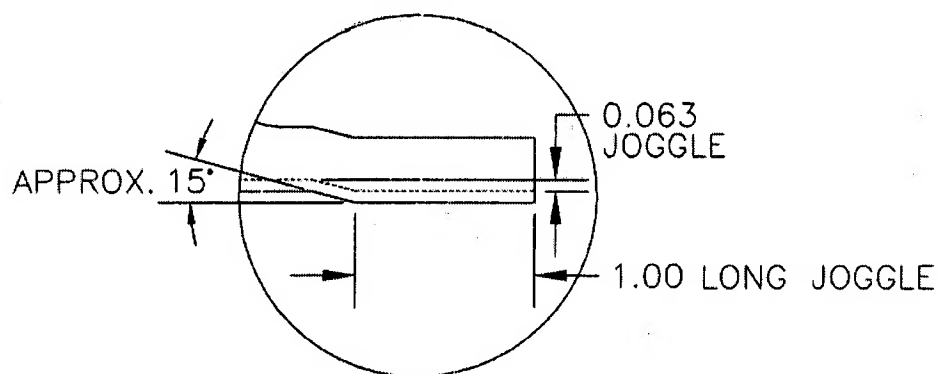
DESIGN #	DRAWN BY CP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED #	APPROVED #	DRAWING NO. D2577	REV. E SHEET 5 OF 5
DATE 00.09.22		TITLE WEARSHOE	SCALE 1:10

RELEASED
00.09.26

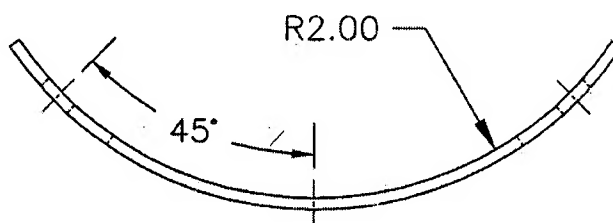
DETAIL B (SCALE 1:1)



DETAIL C (SCALE 1:1)



SECTION D-D (SCALE 1:1)



ENGINE
CONT F
SUBJECT TO
WITH 100
WORK C
NO. 25137

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New Zealand Steel Limited
Glenbrook, South Auckland
Postal: Private Bag 92121, Auckland, New Zealand
Telephones: (09) 375 8999 / 375 8111 Auckland
(09) 235 8089 / 235 3535 Waiuku
Fax: (09) 375 8859

TEST CERTIFICATE

Ref: SZ10/22495

CUSTOMER	Wilkinson	P50323 DI001	SPECIFICATION	ASTMA1008 CS Type A	CERTIFICATE No	TC112397
CUSTOMER O/N	90-21N-686		PRODUCT	CRA WIDE COIL	PAGE	1 of 1
MILL O/N	480737		DIMENSIONS	0.055" x 48" x Coil	DATE	09 June 2005

PACK NUMBER	HEAT No	CHEMICAL COMPOSITION PERCENT															MECHANICAL TESTS (TEST SPECIFICATION - ASTM A370)							
		C	Si	Mn	P	S	Cu	Ni	Cr	Mo	V	Nb	Ti	Al	B	N2	CE ()	BEND	YIELD	T.S.	%ELONG	HARDNESS	r	LENGTH
		x100				x1000										x10000		x100	180°			G.L.=	HRB	()
R9-459713-00	641758	4	TR	18	4	16	13	19	10	5	3	1	1					Good				54		1585
R9-459714-00	641758	4	TR	18	4	16	13	19	10	5	3	1	1					Good				54		1457
R9-459715-00	641513	5	TR	18	9	18	12	17	15	1	6	1	1					Good				48		1375
R9-459716-00	641513	5	TR	18	9	18	12	17	15	1	6	1	1					Good				48		1473
R9-459717-00	641756	5	TR	20	12	19	12	18	19	1	7	1	1					Good				48		1631
R9-459718-00	641756	5	TR	20	12	19	12	18	19	1	7	1	1					Good				48		1093
R9-459719-00	641756	5	TR	20	12	19	12	18	19	1	7	1	1					Good				50		1562
R9-459720-00	641756	5	TR	20	12	19	12	18	19	1	7	1	1					Good				50		1535
R9-460380-00	641761	4	TR	20	13	17	12	18	25	5	8	1	1					Good				50		1581
R9-460381-00	641758	4	TR	18	4	16	13	19	10	5	3	1	1					Good				49		1562
R9-460382-00	641758	4	TR	18	4	16	13	19	10	5	3	1	1					Good				49		1503
R9-461458-00	642309	2	TR	18	10	20	11	17	19	1	6	1	1					Good				48		1785

YIELD	GUAGE LENGTH (G.L.)	PLASTIC STRAIN RATIO (r)	IMPACT TEST	(C)=5mm x 5mm	CARBON EQUIVALENT VALUE (CE)
(A)=0.2% PROOF STRESS	(A)=200mm (C)=80mm (E)=2"	(A)=r0 (C)=r45	(A)=10mm x 10mm	(D)=2.5mm x 10mm	(A)=C+Mn/6
(B)=LOWER YIELD STRESS	(B)=50mm (D)=5.657 So (F)=8"	(B)=r90 (D)=(r0+r90+2r45)/4	(B)=7.5mm x 10mm	(E)=5mm x 10mm	(B)=C+Mn/6+(Cr+V+Mo)/5+(Cu+Ni)/15
					(C)=C+Mn/6+Si/24
					(D)=

WE HEREBY CERTIFY THAT THE MATERIAL DESCRIBED HEREIN HAS BEEN TESTED AND INSPECTED
WITH SATISFACTORY RESULTS IN ACCORDANCE WITH THE REQUIREMENTS OF THE ABOVE SPECIFICATION

APPROVED *Antish Misra*
QC METALLURGIST

16 ga ms

POA 146, 267, 245,

11/23/2004

10:02

CALIFORNIA STEEL IND. → 916043013244

NO.361 0005



California Steel Industries
14000 San Bernardino Ave.
Fontana, California 92335
Ph (909) 350-6300

CERTIFIED TEST REPORT

CUSTOMER ORDER P40715ME001		MO. NUMBER 02-9906-02		SHIPPING DATE 11/22/04		CAR NUMBER RR: BNSF538814		TALLY NUMBER PO 250442783 1/																	
S I L T O	WILKINSON STEEL AND METALS A DIVISION OF PREMETAL CO., INC. 888 S.E. MARINE DR., VANCOUVER BC, CANADA, V5X2V3				S H I P T O	WILKINSON STEEL AND METALS A DIVISION OF PREMETAL CO., INC. 888 S.E. MARINE DR. VANCOUVER BC V5X 2																			
	<p>MARK ALL DOCUMENTS W/P.O. P40715ME001. FAX TALLIES AT TIME OF SHIPMENT TO MEL ELIAS FAX #604-301-3244.</p>																								
END USE	WAREHOUSE STOCK - TO BE LASER CUT																								
PROD	H.R. COILS - P & O - PRIME																								
SPEC	PQ-IN CONFORMANCE WITH ASTM-A-36-96 CHEMICAL AND TENSILE REQUIREMENTS																								
T/R	INSPECTION MILL																								
DESCRIPTION				COILS, PIECES OR BUNDLES	HEAT NUMBER																				
.2500 x 48.0000 x COIL NOM ME				4	M74552																				
						<p>I CERTIFY THE FOLLOWING TEST INFORMATION TO BE CORRECT AS CONTAINED IN THE RECORDS OF THE COMPANY.</p> <p><i>Curto D. Jenkins</i></p> <p>CHIEF - LABORATORY SERVICES</p>																			
MECHANICAL PROPERTIES							CHEMICAL ANALYSIS																		
HEAT OR LOT NUMBER	SER. NUMBER	CO	YIELD STRENGTH KSI	TENSILE STRENGTH KSI	% ELONGATION		BEND TEST	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Al	V	Co	Ti	N				
M74552			46.8 46.4	65.0 64.5	22 24			17	1.05	008	005	029	00	00	00	00	040	001	001	001	004				
CTR-001 PTLU022L 060712																									

PO: 221782

INV: 551102M1D019

PO# 245

1/4" ms

